

## INSECTS OF THE BIBLE.

ROBT. E. BIRDSOING, Vallejo, California.

"All nature is a vast symbolism; every material fact has sheathed within it a spiritual truth."—E. H. Chapin.

"Go to the ant, thou sluggard; consider her ways and be wise: Which having no guide, overseer, or ruler, provideth her meat in the summer, and gathereth her food in the harvest."—Prov. vi. 6-8.

"The ants are a people not strong, yet they prepare their meat in the summer."—Prov. xxx. 25.

Ants feed on flesh, insects, and saccharine matter from trees. They store up corn, chaff, seeds and the like only to protect their nests from the damp. However, there is no denying that they surpass most insects in instinct and industry. There have been several of the genus *Formica* taken in the vicinity of Palestine.

"They compassed about me like bees; &c. . . ."—Ps. cxviii. 12.

There are in abundance the hive bees of England, and even more those of southern Europe. The allusions in the Scripture, however, are mainly to the wild bees, which attack plunderers with great fury. "And the Amorites, which dwelt in that mountain, came out against you, and chased you, as bees do, and destroyed you in Seir, &c."—Deut. i. 44.

The abundance of bees is certified by the term descriptive of Palestine, "flowing with milk and honey." "And all they of the land came to a wood; and there was honey upon the ground."—I Sam. xiv. 25.

The climate and the aromatic flora of Palestine are peculiarly adapted for this particular insect. They are most numerous in the wilderness of Judaea, and they are also found in Assyria. ". . . and for the bee that is in the land of Assyria."—Is. vii. 18.

Honey was one of the delicacies sent by Jacob to Egypt, and a commodity supplied by Judah to the market at Tyre. "And the same John had his raiment of camel's hair, and a leathern girdle about his loins; and his meat was locusts and wild honey."—Mat. iii. 4.

I have been able to locate two species of the latter insect recorded for the district of Palestine; namely, *Apis mellifica* and *A. ligustica*.

"For the stone shall cry out of the wall, and the beam out of the timber shall answer it."—Hab. ii. 11.

There seems to be some doubt as to the translation from the Hebrew of the word Chaphis. Gesenius and others translate the word "beam." In the above verse, Bochart, in his translation, renders Chaphis as "the scarabaeus," or sacred beetle of Egypt. The Jews were familiar with this insect. To the Egyptians it was an emblem of eternity and resurrection. (See Hope, in Trans. Entom. Soc., ii, 173.)

"Come now, and let us reason together, saith the Lord: though your sins be as scarlet, they shall be as white as snow; though they be red like crimson, they shall be as wool."—Is. i. 18.

Tolaath, the Hebrew of Cochineal, is always translated by "Crimson" or "scarlet." It is literally the "crimson worm" (Arab. Kermez), but the latter word is omitted, because in the text the color, not the insect is denoted. The insect, *Coccus ilicis*, is a cochineal, attaching itself to the Syrian holm-oak. The male is winged, the female wingless; and it is from the latter alone that the dye is gained. It is a dark red. The insect is about the size of the kernel of a cherry, but on drying it shrinks smaller than a wheat grain. The insect is very abundant in Palestine, though supplanted as a dye by the imported Mexican species, which feeds on the prickly pear.

"After whom is the king of Israel come out? after whom dost thou pursue? after a dead dog, after a flea."—Sam. xxiv. 20.

"Now therefore, let not my blood fall to the earth before the face of the Lord; for the king of Israel is come out to seek a flea, as when one doth hunt a partridge in the mountains."—Sam. xxvi. 20.

The flea is mentioned only in the two preceding verses, as an illustration of the most insignificant of creatures. That is hardly to be denied. Fleas, *Pulex irritans*, swarm in the very sand of Egypt, and in the dust of all parts of Palestine, the greatest pests of man and beast.

"And the Lord said unto Moses, Say unto Aaron, Stretch out thy rod, and smite the dust of the land, that it may become lice throughout all the land of Egypt."—Ex. viii. 16.

Lice are only mentioned in the record of the Egyptian plague, and the Hebrew name is thought to be of Egyptian origin. Some contend that "gnats" or "mosquitoes" are meant; but the latter spring from water, not from dust as stated in the preceding verse. Parasitic insects abound in the East, and through the summer the Mohammedan men keep their heads shorn to avoid them.

"Else, if thou wilt not let my people go, behold, I will send swarms of flies upon thee, and upon thy servants, and into thy houses: and the houses of the Egyptians shall be full of swarms of flies and also the ground whereon they are."—Ex. viii. 21. . . . "He sent divers sorts of flies among them, which devoured them; and frogs which destroyed them."—Psalms lxxviii. 45.

Arob (Jewish) occurs of the plague of flies in Egypt. It is disputed whether the common house fly or mosquito is meant. Both are great pests in Egypt now, as also are the gad-fly and the horse-fly (*Musca*). The common fly carries the poison of ophthalmia from man to man, and spreads its infection. The reference here is probably generic, including in the "plague of swarms," flies, sandflies, gnats, mosquitos and other members of the related families.

"Dead flies cause the ointment of the apothecary to send forth a stinking savour; . . ."—Eccles. x. 1.

". . . the Lord shall hiss for the fly that is in the uttermost part of the rivers of Egypt, . . ."—Is. vii. 25.

Zebub (Jew.) is only mentioned in the above verses. The former is probably a gad-fly tormenting horses on the banks of the Nile or Jordan, incidentally so pestiferous as to be deprecated by appeals to a special god, Baalzebub (of Ekron), whom the Jews derisively called "lord of the dunghill" (Baal-zebel). Probably the poisonous Tsetse, described by Livingstone, is meant. The other reference would be to the common fly, whose swarms would corrupt any unguent or savory compote in a few minutes.

"Ye blind guides which strain at a gnat, and swallow a camel."—Mat. xxiii. 24.

The only reference to the gnat is found in the former verse, where the proper rendering is "strain out a gnat," a metaphor from the custom of straining wine before drinking. This was done to avoid a breach of ceremonial law, as hinted in the following verses:

"Yet these may ye eat of every flying creeping thing that goeth upon all fours, which have legs above their feet, to leap withal upon the earth," and "And every creeping thing that creepeth upon the earth shall be an abomination; it shall not be eaten."—Lev. xi. 21 & 41.

Gnats (*Culex*) and mosquitos are among the most prevalent pests of Egypt and Palestine, frequenting all marshy ground.

Hornets (Ex. xxiii. 28) were abundant in Palestine, as indicated by the name of the valley of Zoreah (Josh. xv. 35)—"the

place of hornets." The Bible phraseology betokens the dread with which they were regarded; but it is conjectured that God's promise to drive out the Canaanites before Israel was metaphorical of a panic, or of the preceding plague generally, since no mention occurs in the Pentateuch of any such visitation of hornets. Four species (*Vespa crabro*, &c.) resembling ours, but larger, have been found there.

The "Locust" (Ex. x. 4-6. Lev. xi. 22) includes the insects called in late versions by the different names: Beetle, Canker-worm, Caterpillar, Grasshopper, Locust, Bald-locust and Palmer-worm. The Rabbis say there were 800 species, but only about forty have been identified in Palestine. Its name, habits, ravages, appearances, &c., are constantly mentioned in Scripture. Nine Hebrew words are used to express the locust species:

1. Arbeh—Used of the Egyptian plague. (Above verses.)
2. Salam—Probably *Truxalis* (Lev. xi. 22). The word is more than likely of Chaldean origin.
3. Chargol—Occurs once as an edible, clean species. (Lev. xi. 21-22.) Rendered "beetle."
4. Chagob—Generally translated "grasshopper." From a comparison of texts it is gathered that it was the smallest of destructive locusts.
5. Gazem—The palmer-worm. (Joel i. 4.)
6. Yelek—The canker-worm. (Joel i. 4. Nah. iii. 15. Jer. li. 14, 27.)
7. Tzelatzal—Means the "tinkler"; applied to the locust from the noise of its wings. (Deut. xxviii. 42.)
8. Gob—Translated locust and grasshopper. (Is. xxxiii. 4 and Amos vii. 1.)
9. Chasil—Translated caterpillar, though always included in passages with locusts.

The references to the moth in Scripture allude to the destruction of cloths by its larvae, and it is cited as a mark of the perishable nature of temporal things, and the folly of the prevalent eastern custom of hoarding costly raiment. In Job xxvii. 18, "buildeth his house as a moth," reference is made to some leaf rolling larvae. The moth is the only one of the Lepidoptera mentioned in Scripture; but 280 species of this genus have been found, though the climate and absence of wood are unfavorable to butterflies and moths.

Annexed to the Teacher's Edition of the Oxford Bible is a guide to the study of the Bible. Contained in this are historical, chronological and geographical tables; lists of animals, birds, insects, plants, minerals, &c., found in Scriptures. From this list and its cross references, I have gained all that is contained in the foregoing article. I found the subject to be most interesting and instructive, and I present it to the reader hoping that he may derive as much from it as I did.

---

### THE FIRST TYPE FIXATION FOR *CIMEX* LINNAEUS.

H. G. BARBER, Bureau of Entomology, U. S. Department of Agriculture.

As the first true genotype designation for *Cimex* Linnaeus by Latreille in 1803 has been overlooked in Opinion 81 of Opinions Rendered by the International Commission on Zoological Nomenclature,<sup>1</sup> and by various authors who have discussed the question, I quote verbatim from the *Nouveau Dictionnaire d'Histoire Naturelle* (Paris) XVIII, 1803, p. 577, as follow:

"PUNAISE, *Cimex*, genre d'insectes de l'ordre des Hémiptères et de ma famille des CIMICIDES. Ayant converti en famille le genre *cimex* de Linnaeus, il étoit naturel de conserver la dénomination de PUNAISE, *Cimex*, à l'insecte malheureusement trop connu qui porte ce nom. Il m'a paru ridicule de voir appeler *achanthie* ce que tout le monde nomme *punaise*. Le genre dont je traite ici a donc pour type la *punaise des lits* (*acanthia lectularia* Fab.). Les *cimex* du célèbre entomologiste de Kiell répondront à nos genres PENTATOME et SCUTELLÈBE [sic]". . .

The next to the last sentence as translated reads: The genus which I have treated here has therefore for type the bed bug.

There can be no question that this is a valid type fixation, which, fortunately, does not alter the opinion of the Commission of the International Code that *Cimex* must be retained for *lectularius* Linn.

---

<sup>1</sup> Smithsonian Miscellaneous Collections, volume 73, number 2 (Publication 2747). February 9, 1924.